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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,123	09/28/2001	Colin Ching-Ho Chen	60680-1395	4469

10291 7590 03/10/2003

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EXAMINER

RHEE, JANE J

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 03/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/966,123

Applicant(s)

CHEN ET AL.

Examiner

Jane J Rhee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. The term "adapted" in claim 4 and 8 is a relative term which renders the claim indefinite. The term "adapted" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore, III et al. in view of Ragland et al. (5985603).

Moore, III et al. discloses a heat shield for an under the hood vehicular engine component comprising three layers an outer metal layer (figure 5 number 32), an insulation layer (figure 5 number 30), and an inner metal layer adapted to be positioned directly proximal to a shielded component (figure 5 number 34), the insulation layer positioned intermediately between the metal layers (figure 5 number 30), the layers collectively providing thermal insulation of, and reduced noise transmission from the

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component. Moore, III et al. discloses that the outer metal layer of the heat shield comprises a circumferential edge boundary, wherein the boundary is folded over to encase mating edges of the insulation layer and the inner metal layer (figure 3 numbers 26, 13,16). Moore, III et al. discloses that the circumferential edge boundary of the outer metal layer of the heat shield are folded over the mating edges to avoid sharp edges and to reinforce the heat shield structure under conditions of vibration and heat (figure 3, col. 3 line 59-60). Moore, III et al. discloses that the component comprises an exhaust manifold fixed to the engine and adapted to carry hot engine gases away from the engine (figure 2 number 11). Moore, III et al. discloses a series of generally orthogonally disposed beads extending over the body of the shield (figure 2 the bent portions at the bottom of the shield). Moore, III et al. discloses a plurality of arcuate nodes positioned at the intersections of each of the orthogonally disposed beads (figure 1 the four screws). Moore, III et al. discloses that the inner metal layer is directly adjacent to the shielded component and is adapted to reflect heat back to the shielded component (figure 5 number 34). Moore, III et al. discloses that a plurality of nodes is distributed over the body of the shield, each node having a circular shape (figure 1 the screws). Moore, III et al. discloses that the circumferential boundary edges of the outer metal layers of the heat shield are folded over the mating edges to avoid sharp edges to protect hands and fingers of than installer from contact with sharp edges (figure 3).

Moore, III et al. fail to discloses wherein at least one edge portion of the heat shield comprises outwardly flared undulations. Moore, III et al. fail to disclose that the

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outwardly flared undulations define protuberances space apart along the one edge portion of the heat shield.

Ragland et al. teaches at least one edge portion of the heat shield comprises outwardly flared undulations and that the outwardly flared undulations define protuberances space apart along the one edge portion of the heat shield (col. 10 lines 27-29) for the purpose of providing a strong multilayer interlocked wall which imparts surprising structural strength to the shield structure (col. 10 lines 30-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Moore, III et al. with at least one edge portion of the heat shield that comprises outwardly flared undulations and that the outwardly flared undulations define protuberances space apart along the one edge portion of the heat shield in order to provide a strong multilayer interlocked wall which imparts surprising structural strength to the shield structure as taught by Ragland et al. (col. 10 lines 30-32).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane J Rhee whose telephone number is 703-605-4959. The examiner can normally be reached on M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Jane Rhee
March 7, 2003


HAROLD PYON
SUPERVISORY PATENT EXAMINER
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